



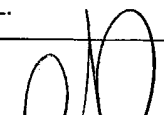
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,775	03/01/2002	Paul Joseph Berlowitz	JJD-0101	8963
27810	7590	10/20/2004		
EXXONMOBIL RESEARCH AND ENGINEERING COMPANY P.O. BOX 900 1545 ROUTE 22 EAST ANNANDALE, NJ 08801-0900				
			EXAMINER TOOMER, CEPHIA D	
			ART UNIT 1714	PAPER NUMBER

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,775	BERLOWITZ ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is rejected because it is redundant. Claim 1 has already set forth that the fuel is a Fischer-Tropsch derived fuel.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO9913031.

WO teaches an emulsion of Fischer-Tropsch (FT) derived fuel, a non-Fischer Tropsch water and a surfactant (see abstract). WO teaches that the fuel emulsion is directed to reducing pollutants (see page 1, second and third paragraphs). The FT fuel may be such a fuel that boils in the diesel fuel range and the non-FT fuel boils in the same range as the FT fuel (diesel)(see page 3, second and third paragraph; page 9, first paragraph).

The non-ionic surfactant is present in the emulsion in an amount from 0.001wt% to 5 wt% and has an HLB of 7-25 (see page 4 last paragraph bridging page 5 through the first paragraph). WO teaches that the emulsion is formed by conventional emulsion technology, such as shearing (see page 5, last paragraph). The surfactant and water are mixed and then the fuel is added to this mixture and blended until an emulsion forms. The preferred water to fuel ratio is 30:70 (see page 8 last two paragraphs).

WO does not specifically teach the particle size of the hydrocarbon and viscosity of emulsion. However, it would be obvious to one of ordinary skill in the art at the time the invention was made to optimize the shearing conditions through routine experimentation to obtain the best particle size and viscosity results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

6. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1152049.

EP teaches a water in hydrocarbon fuel emulsion that is useful as a low-emission fuel (see abstract). The hydrocarbon emulsion has an average droplet size of between 100 angstrom and 700 angstrom or 0.5-2.0 microns wherein the hydrocarbon fuel (diesel fuel) and Fischer-Tropsch synthetic diesel (see paragraphs 0016 and 0032). The surfactant used in the fuel is non-ionic with an HLB of 6-10 (see paragraph 0018) and is present in the emulsion in an amount of less than or equal about 4% (see paragraph 0042). There is between 5-15% water (see paragraph 0043). Claim 15 teaches the process of making emulsion. EP exemplifies emulsions containing from 66 up to 89% diesel fuel (see Examples). EP teaches the limitations of the claims other than the differences that are discussed below.

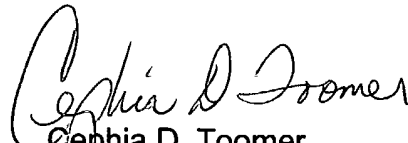
In the first aspect, EP differs from the claims in that it does not specifically teach a mixture of FT fuel and conventional fuel. However, it would have been obvious to one of ordinary skill in the art to have prepared such a mixture because EP teaches that its preferred fuel is a low gravity fuel and EP discloses both conventional diesel fuel and FT derived synthetic diesel as suitable fuels. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

In the second aspect, EP differs from the claims in that it does not specifically teach the viscosity of the emulsion. However, it would be reasonable to expect that the fuel would possess the claimed viscosity given that the emulsions are made by shearing and they contain overlapping proportions for each of the claimed components.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Cephia D. Toomer
Primary Examiner
Art Unit 1714